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The effect of DDT spraying in the Langley-Messick area, 1947.

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24 June 1947. Received call from Mr. Alvah Riggins, Citizen's Bank, Poquoson. Went to see him and Mr. R. C. (Clayter) Forrest in afternoon. "About 21st May, part of salt marsh south of Floyds Bay and all the way to Langley Field, was sprayed with 5% DDT, in oil heavier than diesel oil, by the army. The portion north of Langley and around Messick was included by the army at the request of the county residents. On 23rd and 24th May, a number of crabs were found dead and dying along edge of salt marsh and in its various creeks. Some crabs were found dead and 'paralyzed' about five miles away (north of the sprayed area). The paralyzed crabs usually died in a day or so. Soft shells and buckram crabs seemed to be particularly affected. Everyone said the DDT killed the crabs."

"However, about the 20th or 21st of June, crabs were again seen dead and dying in the same general areas (even in unsprayed areas, where dead crabs were found a month before). The statement has been made frequently, 'guess the DDT did not kill the crabs'. However, the number of crabs living, dead, and dying has been small during the last month, compared to what it was before the DDT spraying.

Mr. Beaton, Mosquito Control Board, c/o S.M. Gibson, Hampton, Va., made the arrangements for the spraying."

25 June 1947. Went out with "Clayter" Forrest from 0700 to 1200, looking for crabs, in creeks mainly draining into Floyd's Bay, Bennets Creek and Poquoson River. This was not in the area previously sprayed.

Area I: Creek entering Floyd's Bay.

Paralyzed	4
Dead	2
Alive and Healthy	22

Area II: Creek entering Poquoson River.

Alive and Healthy	37
Others	0

Area III: Creek entering Poquoson River.

Dead	3
Alive and Healthy	9

Totals

Dead and paralyzed	8
Green hard crabs	6
Peelers, busters, and female doublers	46
Soft crabs	8
Buckrams	9

"Clayter" Forrest claims that there is now a scarcity of crabs, and that before the spraying there were many hundreds of crabs to be seen. The above lists include about 98% of all large crabs seen. In all of the creeks many small crabs were seen scurrying through the water.

Some live crabs were brought to the laboratory at Yorktown and put in a tank of running water. One crab lived about a week. Would not feed during this period. Was in a constant excitatory state until it died; uncoordinated movements of its paddles and legs, no response to objects placed near it nor to being touched. Claws generally limp and useless.

7 July 1947. Mr. Alvah Riggins, Odd, Va., called this morning and said the army had sprayed the area again with DDT on Monday 30 June. "Crabs were dying late in the week." (Thursday - Saturday) Went to Messick with Riggins and talked to Messers Messick, Graham, Rollins, and Reevely, all of Back River Crab Co. Saw some 'sick' (?) crabs which had been kept a few hours in icebox -- most of them did not show the characteristic reactions. Brought these crabs back to the laboratory and put them in water. Four hours after being placed in tank all showed some nervous disturbance, one had almost continuous "shakes," and two others elicited infrequent spasmodic "jerks" of body to right or left. Sponge crab in same tank lay motionless -- this crab taken from area far removed from sprayed area.

11 July 1947. Only two crabs still alive in tank. Were not fed 7th July nor since then. When given fresh mussell, will eat. Both crabs show some nervous disturbance, giving continuous "jerks " of body even when hot touched or otherwise stimulated. (Even when observer stands 10 to 15 feet away from tank, and tank is under subdued light).